Applicant: Brenda M. Ogle et al. Attorney's Docket No.: 07039-0463US1 / 2002-127

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Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

- 1. (Currently Amended) A method for determining lymphocyte diversity in a subject, said method comprising
- a) providing labeled <u>RNA</u> nucleic acid molecules from a population of said subject's lymphocytes, wherein each said labeled <u>RNA</u> nucleic acid molecule encodes a lymphocyte receptor or a portion thereof;
- b) hybridizing said labeled <u>RNA</u> nucleic acid molecules or fragments of said labeled <u>RNA</u> nucleic acid molecules with a population of random nucleic acid molecules; and
- c) determining lymphocyte diversity of said subject by assessing hybridization of said labeled RNA nucleic-acid molecules with said population of random nucleic acid molecules.
- 2. (Original) The method of claim 1, wherein said random nucleic acid molecules within said population are attached to a solid substrate.
- 3. (Original) The method of claim 2, wherein said solid substrate is a multiwell plate or membrane, a glass slide, a chip, or a bead.
- 4. (Original) The method of claim 2, wherein said solid substrate is a bead.
- 5. (Original) The method of claim 4, wherein hybridization is assessed by flow cytometry.

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6. (Original) The method of claim 2, wherein said solid substrate comprises a plurality of discrete regions, wherein each of said discrete regions comprises a different random nucleic acid molecule.

- 7. (Currently Amended) The method of claim 1, wherein said labeled <u>RNA</u> nucleic acid molecules are labeled with a fluorochrome.
- 8. (Original) The method of claim 7, wherein said fluorochrome is fluorescein isothiocyanate (FITC), phycoerythrin (PE), allophycocyanin (APC), or peridinin chlorophyll protein (PerCP).
- 9. (Withdrawn; Currently Amended) The method of claim 1, wherein said labeled <u>RNA</u> nucleic acid molecules are labeled with biotin.
- 10. (Withdrawn; Currently Amended) The method of claim 1, wherein said labeled <u>RNA</u> nucleic acid molecules are labeled with an enzyme.
- 11-12. (Cancelled)
- 13. (Original) The method of claim 1, wherein said population of lymphocytes are T lymphocytes.
- 14. (Currently Amended) The method of claim 13, wherein said labeled <u>RNA</u> nucleic acid molecules encode a variable region from a T cell receptor.
- 15. (Currently Amended) The method of claim 13, wherein said labeled <u>RNA</u> nucleic acid molecules encode a complementarity determining region (CDR) 3 β chain polypeptide.

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16. (Withdrawn) The method of claim 1, wherein said population of lymphocytes are B lymphocytes.

17. (Withdrawn; Currently Amended) The method of claim 16, wherein said labeled <u>RNA</u> nucleic acid molecules encode a variable region from a heavy chain or a light chain.

18-50. (Cancelled)